

REMARKS

I. Objection to Drawings

The drawings stand objected to because the Office Action states:

In Fig. 1 box 36, "COMPUTERIZE" should be changed to "COMPUTERIZED";

In Fig. 8, box 596, "WETTING" should be changed to "WRITING".

In response, Applicants have amended the drawings as requested. Accordingly, Applicants request that the drawing objections be withdrawn.

II. Section 112 Rejection

Claims 46-125 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Office Action indicates that claim 46 includes the limitations "said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller" and "transmitting a second signal from the communication controller to the first node in response to the first request signal, said second signal allocating at least one timeslot to the first node for transmitting the data to the communication controller." The Office Action further states that claims 49, 62, 65, 78, 81, 94 and 97 also includes these limitations. The Office Action indicates these limitations were not described in the specification. Based on the following remarks pointing out relevant parts of the specification identifying terms for individual claims, this rejection is respectfully traversed.

A. First Claim Phrase

Regarding the first claim language identified by the Office Action, "said first request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller," Applicants begin by referencing Fig. 4, particularly steps 204, 296, and 212-220, as described on page

14, line 10 through page 15, line 22, that indicate prior to a request signal, the message size – i.e. specific amount of bandwidth – is already known.

In more detail, the disclosure indicates that a data message is transmitted as one or more packets, and a separate packet (request signal / reservation packet) may be transmitted for the message to indicate the message length or bandwidth. Initially the disclosure indicates that transmission of a data message may require one or more packets. Referring generally to page 10, lines 18-22, the disclosure reads:

“As used herein, a message ... may require a plurality of packets for transmission from a central station 20 [communication controller] to a pager 22 [node] or vice versa. In the ensuing discussion, transmission and reception of messages subsumes transmission and reception of one or more packets.”

Regarding the specified amount of bandwidth or length of the transmitted message, two forms of identification of message length are identified on page 11, lines 2-9 which reads:

“The transmitting device (either central station 20 [communication controller] or pager 22 [node]), allocates the message to one or more packets having a format similar to that of Fig. 12, with the last packet of the message bearing the message termination character. Alternatively, the packets may be formatted in a manner to indicate the number of consecutively related packets emanating from a transmitter (e.g. there may be a separate packet field indicating the continuation number of related packets).”

The later form identifies a “bandwidth amount” for a message being transmitted, the bandwidth amount being the “number of ... packets” for the message as stored in the “separate packet field.”

Bandwidth is further identified prior to a request since the number of packets is known, and the packets have a predetermined format as indicated on page 6, lines 9-10, which refer to Fig. 12. The disclosure at page 6, lines 9-10, reads:

“As generally illustrated in Fig. 12, the communications packets are of a predetermined format ...”

With bandwidth known, the request grant process is next detailed in the specification on page 12, lines 20-22. The specification on page 12, lines 20-22 teaches that:

“[A] sending pager unit 22 [node], transmits, in its assigned time slot, a request signal on frequency f_4 when the sending pager unit 22 desires to send a message.”

Transmission of the request on frequency f_4 , particularly after a message length (or bandwidth) is determined, is likewise shown in the flow chart of Fig. 4. This request forms part of transmission of a “message,” which as identified on page 10, lines 21-22 “subsumes transmission and reception of one or more packets.” The request transmission can, thus, include the “separate packet field” identified on page 11, line 8 identifying the “number of related packets” and thus bandwidth requested for transmission.

Thus, with clear support for bandwidth allocation found on page 11, lines 5-9, which reads “[a]lternatively, the packets may be formatted in a manner to indicate the number of consecutively related packets emanating from a transmitter (e.g. there may be a separate packet field indicating the continuation number of related packets)” coupled with additional support including: (1) a determination of bandwidth indicated in Fig. 4, loop steps 204, 296 prior to transmission of a request in step 214; (2) packets having a “predetermined format” as indicated on page 6, line 10 assuring bandwidth is known from the number of packets; and (3) the request forming part of transmission of a “message,” where “transmission or reception of messages subsumes transmission and reception of one or more packets” as indicated on page 10, lines 21-22, it is respectfully submitted that the disclosure fully supports the first claim language portion identified in the Office Action reading: “said first

request signal including a request for a specified amount of bandwidth to be allocated to the first node for transmitting data from the first node to the communication controller.”

B. Second Claim Phrase

Regarding the second claim language addressed by the Office Action “transmitting a second signal from the communication controller to the first node in response to the first request signal, said second signal allocating at least one time slot to the first node for transmitting the data to the communication controller,” after the request signal is received by the communication controller, the request-grant description in the specification continues on page 13, lines 5-7, reading as follows:

“With the identity of the requesting pager unit 22 [node] now known, at step 136 central control station 20 [communication controller] authorizes the requesting pager unit 22 [node] to transmit its message.”

Data is then transmitted from the node on a frequency f_3 as indicated beginning on page 13, lines 14-16, thus, indicating time on frequency f_3 was allocated for transmission. Thus, Applicants’ respectfully submit that the second claim phrase is fully supported.

For more details, division of the transmission frequencies f_2 - f_4 into time slots as related to clocking frequency f_1 is described on page 8, line 22 - page 9, line 20, with reference to Fig. 13. Fig. 6, similar to Fig. 13, illustrates allocation of time on frequency f_3 as divided into timeslots relative to f_1 . Further disclosure of transmission of packets in time slots allocated on frequency f_3 upon receipt of a grant is discussed with reference to Fig. 4 in page 15, lines 10-22. Allocation of data to separate timeslots to prevent data interference is further generally supported by the disclosure on page 33, lines 18-20 indicating “These techniques allow data transmission to be kept separate from different pagers and thus eliminates merging of data.”

The disclosure supporting the grant signal of the second claim phrase also supports language of the first claim phrase. On page 13, lines 7-13, the grant signal on f_2 is described as part of a "message" having a "packet" including an "op-code" authorization. As discussed for the first claim phrase, the request is part of a "message" that can include a "packet" identifying total packets of a message, or total message bandwidth. Referring to Fig. 6, a size of the grant packet on f_2 with an "opcode" is similar to the bandwidth request packet size on f_4 . Page 19, line 25 - page 20, line 2 discusses the time lines of Fig. 6, indicating grant is particularly provided in context with the request.

With the above identified specifications passages, Applicants, thus, maintain that disclosure was provided under 35 U.S.C. § 112, first paragraph both for the first phrase as well as the second phrase. Applicants therefore request reconsideration and withdrawal of this rejection.

III. Conclusion

In light of the above amendments and remarks, claims 46-125 are now all believed to be in condition for allowance. Accordingly, reconsideration and allowance of these claims is respectfully requested.

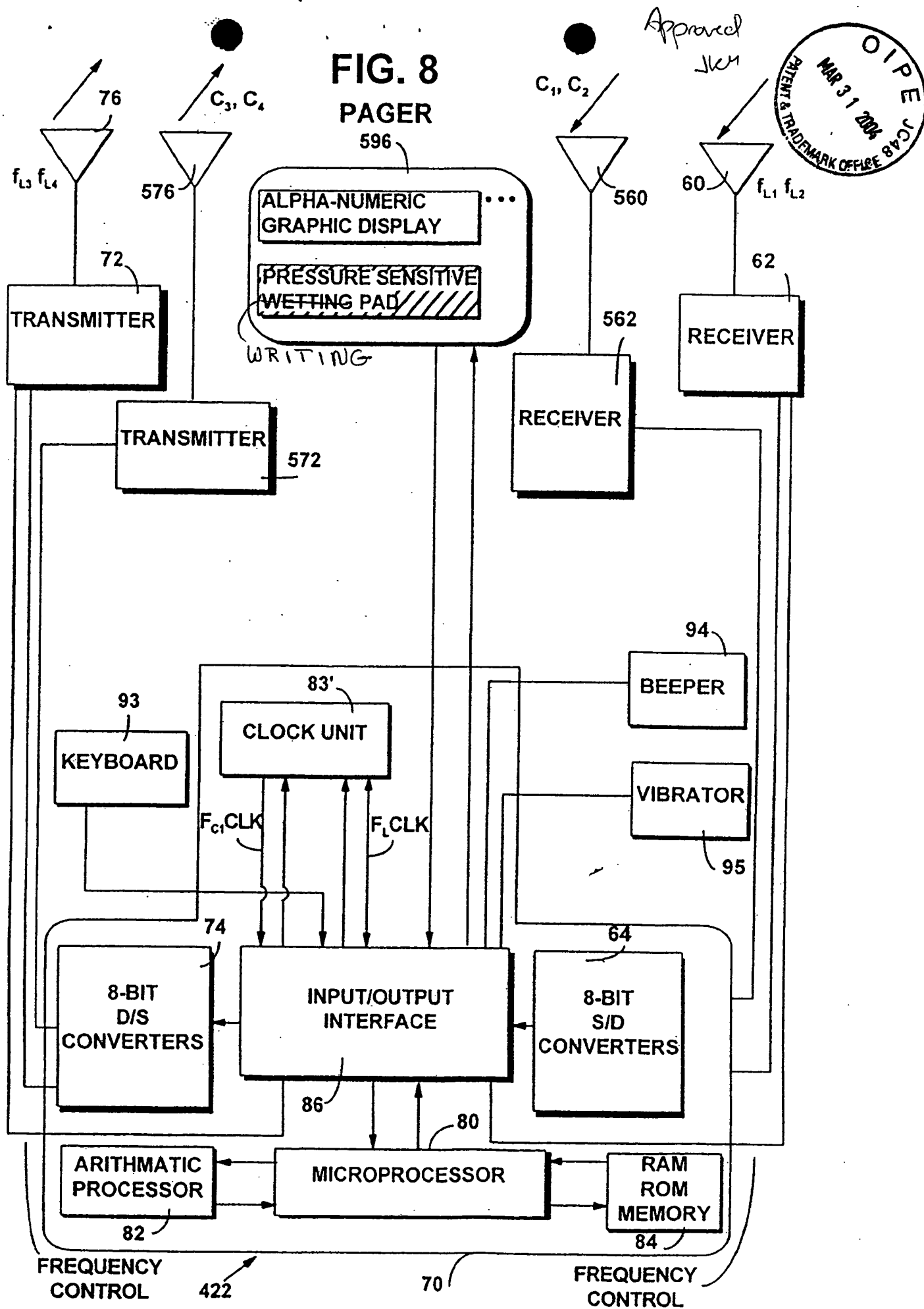
Respectfully submitted,

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FIG. 8
PAGER



Approved
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